Draft
Environmental Assessment

Madison Trumpeter Swan Reintroduction

May 2012

Montana Fish, Wildlife & Parks

Draft Environmental Assessment
MEPA, NEPA, MCA 23-1-110 CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. Type of proposed state action: Montana Fish, Wildlife and Parks (FWP) propose to relocate live trumpeter swans (*Cygnus buccinator*) from the Wyoming Wetlands Society facility in Jackson, Wyoming, into suitable wetland habitats in Montana's Madison Valley.

2. Agency authority for the proposed action: Montana Department of Fish, Wildlife & Parks

3. Name of project: Madison Trumpeter Swan Reintroduction

4. Name, address and phone number of project sponsor (if other than the agency):

5. Anticipated Schedule:
Estimated Date of First Release – approximately 9/1/12
Estimated Date of Last Release – approximately 9/1/16
Subsequent Releases: annually in September

6. Location affected by proposed action (county, range and township):
Madison County, T7S, R1W, Section 4

7. Project size -- estimate the number of acres that would be directly affected that are currently:

	Acres		Acres
(a) Developed:		(d) Floodplain	0
Residential	0		
Industrial	0	(e) Productive:	
(existing shop area)		Irrigated cropland	0
(b) Open Space/	0	Dry cropland	0
Woodlands/Recreation		Forestry	0
(c) Wetlands/Riparian	0	Rangeland	0
Areas		Other	0

8. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction.

(a) Permits: permits will be filed at least 2 weeks prior to project start.

Agency Name	Permits
Wyoming & Montana Dept.'s of Livestock From Jackson, WY to MT	Permits to transport swans

(b) Funding:

Agency Name	Funding Amount
MT FWP and MT FWP Foundation	$5,000

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

Agency Name	Type of Responsibility
U.S. Fish and Wildlife Service	Permit to house trumpeter swans at the Wyoming Wetlands Society facility in Jackson, WY

9. Narrative summary of the proposed action or project including the benefits and purpose of the proposed action:

Initiate limited releases of captive-reared trumpeter swans to establish a breeding flock of five established nesting pairs in the middle Madison Valley of southwest Montana. We aim to increase swan production in the region and enhance connectivity between flocks within and between the tri-state region.

This proposed restoration would allow FWP to implement the Pacific Flyway Council's *Rocky Mountain Population Trumpeter Swan Implementation Plan (TSIP)* that includes a goal to increase the number of breeding pairs of trumpeter swans in suitable habitats. Releases of trumpeters in the middle Madison are expected to result in more trumpeters pioneering wetlands throughout the Madison Valley where suitable nesting areas are available. These releases are expected to ultimately result in establishment of a small breeding flock in the Madison Valley.

The proposed initial release site is the O'Dell Creek Headwaters wetlands south of Ennis, Madison County, Montana, between Quake and Ennis Lakes. O'Dell Creek Headwaters is an 8,000-acre area with extensive wetlands, spring creeks, streams, and riparian areas on the east side of the Madison River. The proposed release site is currently under perpetual protection by a FWP conservation easement. The O'Dell Creek headwaters has undergone habitat suitability evaluations by MT Natural Heritage Program ecologists as well as biologists from the University of Montana Avian Science Center for six years. Results of these surveys show large increases in breeding waterfowl in the O'Dell Creek headwaters since restoration began. In addition, the growth of aquatic vegetation to support breeding swans has been determined to be adequate to support the proposed releases beginning in 2012. Subsequent releases will occur predominately on private land in the Middle Madison with the objective of increasing swan production in the region and enhancing connectivity between flocks.

Birds released in the Madison will have red neck collars and/or red tarsal bands (as well as standard metal leg bands) which will be used to distinguish individuals and help track their survival and movements. This marking protocol has been approved by the U.S.G.S. Bird Banding Lab and is compatible with other marking programs for swans in the U.S. Banding data. Subsequent re-observation data will be collected, maintained, and updated periodically by FWP Region 3 personnel. FWP, through the Montana Wetlands Legacy Partnership, will gather the necessary resources and partner with agencies, conservation organizations, and individuals to monitor breeding swans in the

Madison Valley. This network of observers and landowners will facilitate transfer of information to FWP to assess progress and success of the program. Swan nesting territories will be monitored to determine nest success, causes of mortality, brood success, and other parameters of productivity that will help guide management decisions and enhance the prospect of success for the program.

While Canadian trumpeters winter in small numbers in the area, there are no known records of trumpeters that breed in Montana wintering in the middle Madison in recent years. It is the intention of this restoration effort that this breeding flock be migratory, leaving the Madison valley in winter.

10. Alternatives:

Alternative A: No Action, that is, to continue to conduct wetland restoration in the Madison and assess whether trumpeter swans from other areas naturally pioneer into the Madison Valley to nest without actively translocating birds from other flocks into the Madison.

Alternative B: Proposed Action – Beginning in 2012, annually release captive-bred trumpeter swans from Wyoming Wetlands Society facility in Jackson, Wyoming, into suitable habitats in Montana's Madison Valley until five established nesting pairs result or until FWP biologists determine that reintroduction is unsuccessful at which time further releases will be discontinued.

PART II. ENVIRONMENTAL REVIEW CHECKLIST

Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment.

A. PHYSICAL ENVIRONMENT

1. LAND RESOURCES Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. **Soil instability or changes in geologic substructure?		x				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?		x				
c. **Destruction, covering or modification of any unique geologic or physical features?		x				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		x				
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		x				

Wetlands where the swans are proposed to nest are already established so the proposed action will not involve any ground-breaking activities or other impacts on the land resources of the area.

2. AIR Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. **Emission of air pollutants or deterioration of ambient air quality? (Also see 13 (c).)		x				
b. Creation of objectionable odors?		x				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		x				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		x				
e. ***For P-R/D-J projects, will the project result in any discharge, which will conflict with federal or state air quality regs? (Also see 2a.)		N/A				

No changes to the existing air quality within the Madison Valley are anticipated by this project.

3. WATER Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. *Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?		x				
b. Changes in drainage patterns or the rate and amount of surface runoff?		x				
c. Alteration of the course or magnitude of floodwater or other flows?		x				
d. Changes in the amount of surface water in any water body or creation of a new water body?		x				
e. Exposure of people or property to water related hazards such as flooding?		x				
f. Changes in the quality of groundwater?		x				
g. Changes in the quantity of groundwater?		x				
h. Increase in risk of contamination of surface or groundwater?			x			
i. Effects on any existing water right or reservation?		x				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		x				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		x				
l. ****For P-R/D-J, will the project affect a designated floodplain? (Also see 3c.)		N/A				
m. ***For P-R/D-J, will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a.)		N/A				

Trumpeter swans prefer high-quality water in relatively pristine wetlands as their habitats. While droppings from released birds could enter waters where they are introduced, the small number of swans involved represents only a very minor impact. Populations of mallards and other ducks as well as Canada geese already living year-round in the Madison Valley wetlands outnumber the proposed swan reintroduction by several thousand percent and have not been shown to negatively affect the quality of the aquatic environment.

4. VEGETATION **Will the proposed action result in?**	**IMPACT ***					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?			x			
b. Alteration of a plant community?		x				
c. Adverse effects on any unique, rare, threatened, or endangered species?		x				
d. Reduction in acreage or productivity of any agricultural land?		x				
e. Establishment or spread of noxious weeds?		x				
f. ****For P-R/D-J, will the project affect wetlands, or prime and unique farmland?		N/A				

Trumpeter swan feeding will impact aquatic plant communities in the wetlands where they occur. Trumpeter swans feed mostly in shallow waters and eat stems and leaves of aquatic plants growing on the bottom of wetlands. Trumpeters will also dig holes a foot deep in search of roots and shoots in the bottom of the wetland. However, the number of swans involved in the proposed reintroduction is so small as to make that grazing by swans of negligible effect. Migratory (Canadian) trumpeters already stop and feed in the proposed release area during migratory and wintering periods, graze wetland plants, and have not created any known effect on productivity and abundance of aquatic plant species in these areas.

Although trumpeter swans have been reported to feed in agricultural fields, this has not been observed to occur in the Madison Valley by FWP biologists or others. Additionally, the number of swans involved is so small that even if some feeding in agricultural fields were to occur at some future time, the number of swans involved in that feeding would be few. Most swan feeding in agricultural fields in the Wyoming/Idaho/Montana (Tri-State) Region has been on waste grain left after harvesting operations and has not adversely affected growing crops.

** 5. FISH/WILDLIFE Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Deterioration of critical fish or wildlife habitat?		x				
b. Changes in the diversity or abundance of game animals or bird species?			x			
c. Changes in the diversity or abundance of nongame species?		x				
d. Introduction of new species into an area?		x				
e. Creation of a barrier to the migration or movement of animals?		x				
f. Adverse effects on any unique, rare, threatened, or endangered species?		x				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		x				
h. ****For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f.)		N/A				
i. ***For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d.)		N/A				

Reintroduction of trumpeter swans with the intent to re-establish nesting in the Madison Valley, if successful, could restore one native bird species to Montana's Madison Valley where they have not been found to nest in recent history. The interaction of additional trumpeter swans with other wildlife species in the Madison Valley would be unlikely to cause a negative cumulative effect on any of these wildlife species.

While Canadian trumpeters winter in small numbers in the area, there are no known records of trumpeters that breed in Montana wintering in the middle Madison in recent years. It is the intention of this restoration effort that this breeding flock be migratory, leaving the Madison Valley in winter. Releasing young birds into a soft release pen will enable the newly released birds to become familiar with the environment and promote returning to the same area the following year.

We do not suspect that predation will be a major concern for released trumpeters, especially considering these habitat now offers protected nesting islands and wide areas along the shoreline that offer protected foraging and hiding areas. There is no waterfowl hunting permitted at or adjacent to the release site, so hunters will not pose a threat.

B. HUMAN ENVIRONMENT

6. NOISE/ELECTRICAL EFFECTS **Will the proposed action result in:**	**IMPACT ***					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Increases in existing noise levels?		x				
b. Exposure of people to serve or nuisance noise levels?		x				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		x				
d. Interference with radio or television reception and operation?		x				

No changes to the existing noise levels in the Madison Valley are anticipated by this project.

7. LAND USE **Will the proposed action result in:**	**IMPACT ***					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		x				
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		x				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		x				
d. Adverse effects on or relocation of residences?		x				

The proposed reintroduction of trumpeter swans to the Madison Valley is not expected to impact existing land uses.

8. RISK/HEALTH HAZARDS Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		x				
b. Affect an existing emergency response or emergency evacuation plan, or create a need for a new plan?		x				
c. Creation of any human health hazard or potential hazard?		x				
d. ***For P-R/D-J, will any chemical toxicants be used? (Also see 8a)		N/A				

No health hazards are expected to be created by the reintroduction of trumpeter swans to the Madison Valley.

9. COMMUNITY IMPACT Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		x				
b. Alteration of the social structure of a community?		x				
c. Alteration of the level or distribution of employment or community or personal income?			x			
d. Changes in industrial or commercial activity?		x				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		x				

Because birding and its increasing popularity in the U.S. is a growth industry, having nesting trumpeters re-established in the Madison Valley has some limited (minor) potential to interest Madison County residents and visitors to the county to observe/photograph swans. When visitors come from outside of Madison County, some of this travel to observe nesting swans, swans with young, and birds in general could result in some increase in personal income in Madison County for those involved in the sale of gasoline, food and lodging, and outdoor gear and supplies.

10. PUBLIC SERVICES/TAXES/UTILITIES **Will the proposed action result in:**	**IMPACT ⁎**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:		x				
b. Will the proposed action have an effect upon the local or state tax base and revenues?		x				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		x				
d. Will the proposed action result in increased use of any energy source?		x				
e. ⁎⁎Define projected revenue sources		N/A				
f. ⁎⁎Define projected maintenance costs.						
g. Other:						

If the proposed action is initiated, local electric companies in Madison County may need to continue to mark powerlines to attempt to reduce swan mortalities arising from collisions with these lines. However, this is an ongoing activity in Madison County now so the likelihood of a higher degree of line marking is expected to be very minor; i.e. not "substantial".

FWP, through the Montana Wetlands Legacy Partnership, will gather the necessary resources and partner with individuals and other organizations to continue to monitor swans in the Madison Valley. These efforts will result in a network of observers and landowners in the Madison to facilitate transfer of information to FWP and its partners to assist in building understanding about the status of the Madison flock. Swan nest territories will be monitored to determine nest success, causes of mortality, brood success, and other parameters of productivity which will help guide decisions about providing nest sites, reducing hazards and other sources of mortality, and enhancing chances for success of the restoration effort. FWP will continue to work with landowners and the public in regard to handling of dead or injured trumpeters. These birds will be collected and necropsied at the appropriate state or federal labs or conveyed to licensed rehab facilities for possible return to the Jackson facility. Because most of the monitoring will be conducted via local landowners and volunteer organizations, we do not foresee using FWP biologists and/technician time and resources.

** 11. AESTHETICS/RECREATION Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		x				
b. Alteration of the aesthetic character of a community or neighborhood?			x			
c. **Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report.)		X				
d. ***For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c.)		N/A				

The sight and sound of trumpeter swans in the Madison Valley will have a minor benefit to residents and visitors who encounter these birds. These sights and sounds are already occurring with migrating Canadian trumpeters as well as the occasional spring and summer vagrant swan in the area. Overall however, public comment received to date regarding the proposed action is that residents and landowners are looking forward to the return of nesting trumpeters to the Madison Valley.

12. CULTURAL/HISTORICAL RESOURCES Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. **Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?		x				
b. Physical change that would affect unique cultural values?		x				
c. Effects on existing religious or sacred uses of a site or area?		x				
d. ****For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a.)		N/A				

The proposed project would have no impact to existing cultural or historic resources.

SIGNIFICANCE CRITERIA

13. SUMMARY EVALUATION OF SIGNIFICANCE Will the proposed action, considered as a whole:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources that create a significant effect when considered together or in total.)		x				
b. Involve potential risks or adverse effects, which are uncertain but extremely hazardous if they were to occur?		x				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		x				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		x				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		x				
f. ***For P-R/D-J, is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e.)						
g. ****For P-R/D-J, list any federal or state permits required.						

The proposed action is not proposed to be a one-time event. FWP biologists, as proposed, would be engaged in annual releases for several consecutive years to establish nesting trumpeters in the Madison Valley. While precedent setting in this regard, the duration of the release program, number of swans involved, and other aspects of the proposed action cumulatively will be minor. Funds for the proposed action are being gathered from private sources so FWP is not investing license revenue or other department–generated funding to defray the primary costs of the proposed action.

Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

None

PART III. NARRATIVE EVALUATION AND COMMENT

The proposed action is modeled after a successful trumpeter swan reintroduction program in the Blackfoot Valley of Montana as well as similar projects in Idaho and Wyoming. In the Blackfoot, releases of captive-reared trumpeters began in 2005 culminating with nesting by two wild pairs in 2011. The proposed Madison program will be a smaller effort than that in the Blackfoot but is proposed to use the same methodology.

Re-establishment of this native bird to its historic range is in keeping with Montana Fish, Wildlife and Parks' commitment to its ***Comprehensive Fish and Wildlife Conservation Strategy*** which identifies conservation of trumpeter swans and wetlands as first priority activities.

FWP is authorized under the authority granted in 87-1-201 MCA to "spend for the protection, preservation, and propagation of . . . game and nongame birds all state funds collected or acquired for that purpose . ." FWP's authority to protect, preserve, and propagate game and nongame birds is subject to rules and policies that may be adopted by the Fish, Wildlife & Parks Commission, as described in 87-1-301 MCA. The trumpeter swan is classified as a "migratory game bird" under 87-2-101 MCA.

PART IV. PUBLIC PARTICIPATION

1. Public involvement:

The public will be notified in the following manners to comment on this current EA, the proposed action and alternatives:

- Two public notices in each of these papers: Madisonian and Bozeman Daily Chronicle
- One statewide press release;
- Public notice on the Fish, Wildlife & Parks web page: *http://fwp.mt.gov*.

Copies of this environmental assessment will be distributed to landowners and interested parties to ensure their knowledge of the proposed project.

This level of public notice and participation is appropriate for a project of this scope having limited impacts, many of which can be mitigated.

2. Duration of comment period, if any.

The public comment period will extend for (14) fourteen days following the publication of the second legal notice in area newspapers. Written comments will be accepted until 5:00 p.m., May 21, 2012 and can be mailed to the address below:

Claire Gower, FWP Native Species Biologist
Montana Fish, Wildlife and Parks
1400 South Nineteenth
Bozeman, MT 59718
cgower@mt.gov

PART V. EA PREPARATION

1. Based on the significance criteria evaluated in this EA, is an EIS required? (YES/NO)? No
If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action.

Based on an evaluation of impacts to the physical and human environment, under MEPA, the proposed action is not a significant action affecting the human environment; therefore, an environmental impact statement is not a necessary level of review.

2. Person responsible for preparing the EA:

Claire Gower, Native Species Biologist
Montana Fish, Wildlife and Parks
1400 South Nineteenth
Bozeman, MT 59718
406-994-5953

3. List of agencies consulted during preparation of the EA:

Montana Fish, Wildlife & Parks
Fish and Wildlife Division
Legal Bureau

APPENDICES

None